**Type: Poster Presentation**

Final Abstract Number: 53.052
*Session: Epidemiology & Public Health*
*Date: Saturday, June 16, 2012*
*Time: 12:45-14:15*
*Room: Poster & Exhibition Area*

### MESA - Malaria Eradication Scientific Alliance

P. Alonso[1], F. Binka[2], G. Brown[3], C. Chitnis[4], J. Milman[5], R. Newman[6], J. Sattabongkot Prachumsri[7,*], D. Schellenberg[8], M. Tanner[9]

[1] *ISGlobal, Barcelona Institute for Global Health, Barcelona, Spain*
[2] *University of Ghana, Legon, Ghana*
[3] *University of Melbourne, Melbourne, Australia*
[4] *ICGEB, International Centre for Genetic Engineering and Biotechnology, New Delhi, India*
[5] *BMGF, The Bill and Melinda Gates Foundation, Seattle, WA, USA*
[6] *WHO, World Health Organization, Geneva, Switzerland*
[7] *Mahidol University, Bangkok, Thailand*
[8] *LSHTM, London School of Hygiene and Tropical Medicine, London, United Kingdom*
[9] *University of Basel, Basel, Switzerland*

**Background:** Four years since the call to eradicate malaria and almost two years since the publication of the malaria eradication R&D agenda, the Malaria Eradication Scientific Alliance - MESA - is galvanizing research efforts. In collaboration with the scientific community, MESA identifies, prioritises and financially supports research projects testing hypotheses deemed critical to the science of malaria eradication. MESA aims to advance the science of malaria eradication.

**Methods:** MESA is led by a nine member Steering Committee, chaired by the Barcelona Institute for Global Health (ISGlobal). The Steering Committee partners are the Bill and Melinda Gates Foundation, Ghana School of Public Health, International Centre for Genetic Engineering and Biotechnology, London School of Hygiene and Tropical Medicine, Mahidol Vivax Research Center, Nossal Institute for Global Health, Swiss Tropical and Public Health Institute and World Health Organization Global Malaria Program (WHO-GMP). The MESA Strategic Advisory Council provides high level governance and oversight of the MESA project and activities. The MESA Secretariat supports the running of the project. Topic-specific working groups, convened through MESA, undertake gap analysis of research activities, identify needs and advise on research project priorities. To date, MESA has convened working groups on 'Health Systems' Readiness' and 'Measurement of Transmission'.

**Results:** MESA provides the necessary coordination of research projects testing hypotheses pertinent to the science of malaria eradication. Engagement with the scientific community synergizes research efforts and keeps MESA's priorities responsive to changing needs. Further, with active involvement of the WHO GMP, MESA integrates knowledge of health systems, socio-economic and cultural factors from the household to national levels such that tools are developed to achieve malaria elimination in different settings.

**Conclusion:** As a meeting place for the malaria community, MESA facilitates the coordination of research efforts and dissemination of results. In parallel, MESA updates the R&D agenda, makes cost estimates of malaria eradication R&D activities and measures spending. This further informs priority-setting and further facilitates coordination.

http://dx.doi.org/10.1016/j.ijid.2012.05.452

**Type: Poster Presentation**

Final Abstract Number: 53.053
*Session: Epidemiology & Public Health*
*Date: Saturday, June 16, 2012*
*Time: 12:45-14:15*
*Room: Poster & Exhibition Area*

### Using RFLP analysis to determine transmission of S. aureus within a first semester medical school cohort

K. Shupe-Ricksecker*, F. Bashir, B. Erdreich, G. Kundi, M. McGlue

*Auc School of Medicine, Cupecoy, Netherlands*

**Background:** Nosocomial carriage of *Staphylococcus aureus* is a rising topic of concern within the health care community due to increasing prevalence, association with multiple clinical presentations, complications of existing conditions, and antibiotic resistance. The carriage of *S. aureus* by health care professionals poses a potential risk of transmission to their patients. This study was designed to determine the carriage rates and rates of transmission within a first semester class at the AUC School of Medicine.

**Methods:** In the initial part of the study focus was placed on assessing carriage rates. Nasal swab cultures were obtained from first semester medical students during their first week of class, and analysis was done to determine positivity for *S. aureus* carriage. A second assessment of carriage was performed in the same group after 12 weeks of close contact. Antibiotic resistance patterns for all isolates were obtained.

The presence of coagulase enzyme activity was used as one of the markers to confirm *S. aureus* isolates. Amongst different strains of S. aureus there are polymorphic variations within the coagulase gene. These polymorphisms allow for analysis of related strains comparing RFLP patterns after PCR amplification.

**Results:** The results of the initial study showed an increase in prevalence from 13.5% to 21% after the 12 week period. This indicate either possible transmission from within the cohort or possible contraction from an external source. All isolates were shown to be resistant to methicillin. The RFLP analysis on gel electrophoresis demonstrated 5 distinct band patterns from the first week of carriage assessment. Data from RFLP analysis of the 12 week carriage assessment suggests both transmission within the cohort and from an external source.

**Conclusion:** After 12 weeks of close contact, *S. aureus* carriages rates rose from 13.5% to 21%. RFLP patterns demonstrated transmission within the cohort.

http://dx.doi.org/10.1016/j.ijid.2012.05.453